

WHAT IS CLAIMED IS:

1. A method for inhibiting the action of TNF for treating neurological conditions in a human by administering a TNF antagonist for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human, comprising the step of:

a) administering a therapeutically effective dosage level to said human of said TNF antagonist selected from the group consisting of etanercept, infliximab, and D2E7 (a human anti-TNF mAb from Knoll Pharmaceuticals) for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human.

2. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist is performed through any of the following routes: subcutaneous, intravenous, intrathecal, intramuscular, parenteral, or intracerebroventricular.

3. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating chronic epileptic disorders.

4. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Postherpetic Neuralgia.

5. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for the prevention of Postherpetic Neuralgia.

6. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Viral Encephalitis.

7. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Viral Meningitis.

8. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating neurological disorders associated with HIV, including HIV Dementia, HIV-associated Myelopathy, and HIV-associated Peripheral Neuropathy.

9. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating HTLV-1 Myelopathy.

10. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Reye's Syndrome.

11. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating cerebrovascular disease.

12. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for prophylaxis of brain injury caused by stroke.

13. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Trigeminal Neuralgia.

14. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating influenza.

15. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Herpes Zoster.

16. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating stroke.

5 17. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Meniere's Disease.

18. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Reflex Sympathetic Dystrophy (RSD).

10 19. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating Chronic Inflammatory Demyelinating Polyneuropathy (CIDP).

15 20. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said dosage level is for treating neurological disorders associated with Poliomyelitis, including acute Poliomyelitis and postpolio syndrome.

21. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of etanercept is performed subcutaneously in said human wherein said dosage level is in the range of 5mg to 50mg for acute or chronic regimens.

22. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of D2E7 is performed subcutaneously in said human wherein said dosage level is in the range of 20mg to 100mg for acute or chronic regimens.

23. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of infliximab is performed subcutaneously in said human wherein said dosage level is a ~~therapeutically~~ ^{therapeutically} effective amount.

24. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of etanercept is performed intramuscularly in said human wherein said dosage level is in the range of 25mg to 100mg.

25. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of infliximab is performed intravenously in said human wherein said dosage level is in the range of 2.5 mg/kg to 20mg/kg.

5 26. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of etanercept is performed intrathecally in said human wherein said dosage level is in the range of 0.1mg to 25mg administered from once a day to once every 3 months.

10 27. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of infliximab is performed intrathecally in said human wherein said dosage level is in the range of 0.1mg/kg to 5mg/kg administered from once a week to once every 3 months.

15 28. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of D2E7 is performed intrathecally in said human wherein said dosage level is in the range of 0.1mg to 25mg administered from once a week to once every 3 months.

29. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist is performed intravenously in said human wherein said dosage level is a therapeutically effective amount.

5 30. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of etanercept is performed intracerebroventricularly in said human wherein said dosage level is in the range of 0.1mg to 25mg administered from once a day to once a month.

10 31. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of infliximab is performed intracerebroventricularly in said human wherein said dosage level is in the range of 0.1mg/kg to 5mg/kg administered from once a week to once every 3 months.

15 32. A method for inhibiting the action of TNF in accordance with Claim 1, wherein the step of administering said TNF antagonist in the form of D2E7 is performed intracerebroventricularly in said human wherein said dosage level is in the range of 0.1mg to 25mg administered from once a week to once every 3 months.

33. A method for inhibiting the action of TNF for treating the neurological condition of Postherpetic Neuralgia in a human by administering a TNF antagonist for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human, comprising the steps of:

a) administering a therapeutically effective dosage level to said human of said TNF antagonist selected from the group consisting of etanercept, infliximab, and D2E7 (a human anti-TNF mAb from Knoll Pharmaceuticals) for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human; and

b) administering a therapeutically effective dosage level to said human of an antiviral agent selected from the group consisting of Acyclovir, Valaciclovir, and Famciclovir for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human.

34. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said TNF antagonist in the form of etanercept is performed subcutaneously in said human wherein said dosage level is in the range of 5mg to 50mg for acute or chronic regimens.

35. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said TNF antagonist in the form of D2E7 is performed subcutaneously in said human wherein said dosage level is in the range of 20mg to 100mg
5 for acute or chronic regimens.

36. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said TNF antagonist in the form of infliximab is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.
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37. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said TNF antagonist in the form of infliximab is performed intravenously in said human wherein said dosage level is in the range of 2.5 mg/kg to 20mg/kg.
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38. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said TNF antagonist is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.

39. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said TNF antagonist is performed intravenously in said human wherein said dosage level is a therapeutically effective amount.

5 40. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said antiviral agent in the form of Acyclovir is performed orally in said human, wherein said dosage level is 400mg taken 2 to 5 times per day.

10 41. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said antiviral agent in the form of Valaciclovir is performed orally in said human, wherein said dosage level is one gram taken once or twice per day.

15 42. A method for inhibiting the action of TNF in accordance with Claim 33, wherein the step of administering said antiviral agent in the form of Famciclovir is performed orally in said human, wherein said dosage level is 250mg to 500mg taken 2 to 3 times per day.

43. A method for inhibiting the action of TNF for treating the neurological effects of influenza in a human by administering a TNF antagonist for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human, comprising the steps of:

a) administering a therapeutically effective dosage level to said human of said TNF antagonist selected from the group consisting of etanercept, infliximab, and D2E7 (a human anti-TNF mAb from Knoll Pharmaceuticals) for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human; and

b) administering a therapeutically effective dosage level to said human of the antiviral agent oseltamivir phosphate for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human.

44. A method for inhibiting the action of TNF in accordance with Claim 43, wherein the step of administering said TNF antagonist in the form of etanercept is performed subcutaneously in said human wherein said dosage level is in the range of 5mg to 50mg for acute or chronic regimens.

45. A method for inhibiting the action of TNF in accordance with Claim 43, wherein the step of administering said TNF antagonist in the form of D2E7 is performed subcutaneously in said human wherein said dosage level is in the range of 20mg to 100mg for acute or chronic regimens.

46. A method for inhibiting the action of TNF in accordance with Claim 43, wherein the step of administering said TNF antagonist in the form of infliximab is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.

47. A method for inhibiting the action of TNF in accordance with Claim 43, wherein the step of administering said TNF antagonist is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.

48. A method for inhibiting the action of TNF in accordance with Claim 43, wherein the step of administering oseltamivir is performed orally in said human, wherein said dosage level is 75mg taken 2 times per day for 5 to 10 days.

49. A method for inhibiting the action of TNF for treating neurological conditions associated with HIV in a human by administering a TNF antagonist for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human, comprising the steps of:

a) administering a therapeutically effective dosage level to said human of said TNF antagonist selected from the group consisting of etanercept, infliximab, and D2E7 (a human anti-TNF mAb from Knoll Pharmaceuticals) for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human; and

b) administering a therapeutically effective dosage level to said human of an antiretroviral agent or agents for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human.

50. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of etanercept is performed subcutaneously in said human wherein said dosage level is in the range of 5mg to 50mg for acute or chronic regimens.

51. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of D2E7 is performed subcutaneously in said human wherein said dosage level is in the range of 20mg to 100mg for acute or chronic regimens.

52. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of infliximab is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.

53. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of infliximab is performed intravenously in said human wherein said dosage level is in the range of 2.5 mg/kg to 20mg/kg.

54. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of etanercept is performed intrathecally in said human wherein said dosage level is in the range of 0.1mg to 25mg administered from once a day to once every 3 months.

55. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of infliximab is performed intrathecally in said human wherein said dosage level is in the range of 0.1mg/kg to 5mg/kg administered from once a week to once every 3 months.

56. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of D2E7 is performed intrathecally in said human wherein said dosage level is in the range of 0.1mg to 25mg administered once a week to once every 3 months.

57. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist is performed intravenously in said human wherein said dosage level is a therapeutically effective amount.

58. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.

59. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of etanercept is performed intracerebroventricularly in said human wherein said dosage level is in the range of 0.1mg to 25mg administered once a day to once a month.

60. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of infliximab is performed intracerebroventricularly in said human wherein said dosage level is in the range of 0.1mg/kg to 5mg/kg administered once a week to once every 3 months.

61. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said TNF antagonist in the form of D2E7 is performed intracerebroventricularly in said human wherein said dosage level is in the range of 0.1mg to 25mg administered once a week to once every 3 months.

62. A method for inhibiting the action of TNF in accordance with Claim 49, wherein the step of administering said dosage level is for treating HIV Dementia, HIV-associated Myelopathy, or HIV-associated Peripheral Neuropathy.

63. A method for inhibiting the action of TNF in accordance with Claim 49, wherein said antiretroviral agent or agents are selected from the group consisting of Stavudine, Lamivudine, Indinavir, Ritonavir, Nelfinavir, Saquinavir, Zidovudine, Didanosine, Delavirdine, Nevirapine, Amprenavir, and Efavirenz.

64. A method for inhibiting the action of TNF for the prevention of Postherpetic Neuralgia in a human by administering a TNF antagonist for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human, comprising the steps of:

a) administering a therapeutically effective dosage level to said human of said TNF antagonist selected from the group consisting of etanercept, infliximab, and D2E7 (a human anti-TNF mAb from Knoll Pharmaceuticals) for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human; and

b) administering a therapeutically effective dosage level to said human of an antiviral agent selected from the group consisting of Acyclovir, Valaciclovir, and Famciclovir for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human.

65. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said TNF antagonist in the form of etanercept is performed subcutaneously in said human wherein said dosage level is in the range of 5mg to 50mg for acute or chronic regimens.

66. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said TNF antagonist in the form of D2E7 is performed subcutaneously in said human wherein said dosage level is in the range of 20mg to 100mg for acute or chronic regimens.

67. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said TNF antagonist in the form of infliximab is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.

68. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said TNF antagonist in the form of infliximab is performed intravenously in said human wherein said dosage level is in the range of 2.5mg/kg to 20mg/kg.

69. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said TNF antagonist is performed subcutaneously in said human wherein said dosage level is a therapeutically effective amount.

5 70. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said TNF antagonist is performed intravenously in said human wherein said dosage level is a therapeutically effective amount.

10 71. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said antiviral agent in the form of Acyclovir is performed orally in said human, wherein said dosage level is 400mg taken 2 to 5 times per day.

15 72. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said antiviral agent in the form of Valaciclovir is performed orally in said human, wherein said dosage level is one gram taken once or twice per day.

73. A method for inhibiting the action of TNF in accordance with Claim 64, wherein the step of administering said antiviral agent in the form of Famciclovir is performed orally in said human, wherein said dosage level is 250mg to 500mg taken 2 to 3 times per day.

74. A method for inhibiting the action of TNF for treating neurological effects of Epilepsy in a human by administering a TNF antagonist for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human, comprising the step of:

a) administering a therapeutically effective dosage level to said human of said TNF antagonist selected from the group consisting of etanercept, infliximab, and D2E7 (a human anti-TNF mAb from Knoll Pharmaceuticals) for reducing the inflammation of neuronal tissue or the neuromuscular junction of said human, or for modulating the immune response affecting neuronal tissue or the neuromuscular junction of said human.

75. A method for inhibiting the action of TNF in accordance with Claim 74, wherein the step of administering said TNF antagonist in the form of etanercept is performed subcutaneously in said human wherein said dosage level is in the range of 5mg to 50mg for acute or chronic regimens.

76. A method for inhibiting the action of TNF in accordance with Claim 74, wherein the step of administering said TNF antagonist in the form of D2E7 is performed subcutaneously in said human wherein said dosage level is in the range of 20mg to 100mg for acute or chronic regimens.

77. A method for inhibiting the action of TNF in accordance with Claim 74, wherein the step of administering said TNF antagonist is performed subcutaneously in said human wherein said dosage level is a ~~therapeutically~~ ^{therapeutically} effective amount.

78. A method for inhibiting the action of TNF in accordance with Claim 74, wherein the step of administering said TNF antagonist in the form of D2E7 is performed intravenously in said human wherein said dosage level is a therapeutically effective amount.

79. A method for inhibiting the action of TNF in accordance with Claim 74, wherein the step of administering said TNF antagonist in the form of infliximab is performed intravenously in said human wherein said dosage level is in the range of 2.5 mg/kg to 20mg/kg.

80. A method for inhibiting the action of TNF in accordance with Claim 74, wherein the step of administering said TNF antagonist is performed intravenously in said human wherein said dosage level is a therapeutically effective amount.

5 81. A method for inhibiting the action of TNF for treating neurological conditions in a human by administering a TNF antagonist for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human, comprising the steps of:

10 a) administering a therapeutically effective dosage level to said human of said TNF antagonist selected from the group consisting of etanercept, infliximab, and D2E7 (a human anti-TNF mAb from Knoll Pharmaceuticals) for reducing the inflammation of neuronal tissue of said human, or for modulating the immune response affecting neuronal tissue of said human; and

15 b) administering a therapeutically effective dosage level to said human of an antiviral agent selected from the group consisting of Acyclovir, Valaciclovir, and Famciclovir for reducing the inflammation of neuronal tissue of said human, or for
20 modulating the immune response affecting neuronal tissue of said human.

82. A method for inhibiting the action of TNF in accordance with Claim 81, wherein the step of administering said dosage level is for treating Multiple Sclerosis.

83. A method for inhibiting the action of TNF in accordance with Claim 81, wherein the step of administering said dosage level is for treating infection caused by neurotropic viruses.

84. A method for inhibiting the action of TNF in accordance with Claim 81, wherein the step of administering said dosage level is for treating or preventing neurological conditions associated with infection with members of the herpes virus family, including Herpes Simplex, Varicella, EBV and CMV.